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CIA/BI PN 69.1911S
June 1967

ADDITIONAL COMMENTS ON THE ISSUANCE
OF AN EXPORT LICENSE FOR A (US) WORDEN GRAVIMETER

The information provided by the US Embassy, Warsaw, in Airgram A-625 dated 13 April 1967 and its attachment confirms the assessment provided in CIA/BI PN 69.1911P dated 30 January 1967. Although Poland as a member of the International Association of Geodesy (IAG) has "cooperated" in international programs, this cooperation (described on pages 29 and 30 of the attachment) is confined to studies of the earth's crust. Such studies represent a very limited category of basic research which because of their generalized nature have no military application or utility. In basic research that involves dissemination or disclosure of specific gravity data or geodetic positions Poland is noncooperative.

Poland, like all other Communist countries in Europe, has been incorporated into the Soviet geodetic network and is committed to the security controls imposed by the USSR. It has not, therefore, disseminated its 1955 gravity catalog to the International Gravity Bureau or to anyone outside the Communist bloc. Similarly, Poland abstains from participation in international IAG programs on 1) the adjustment of the European triangulation, 2) the worldwide first-order gravity program, 3) the determination of absolute gravity values, 4) the production of a uniform system of gravity maps of Bouguer anomalies, and 5) the geodetic satellite program. From this listing it is obvious that the Polish justification for the importation of a Worden gravimeter based on international cooperation is specious.

The USSR recognized the strategic importance of geodetic and gravimetric data long before any of the Western countries, and for many years it protected as state secrets all of its information in both fields. For example, no gravity values dated later than 1940 have been released outside of the USSR, and these 1940 values incorporate 1937 data. The development

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of missiles has, of course, raised the security premium on these data even higher. Gravity data are vital to the USSR in the development of a worldwide geodetic coordinate system and in the establishment of an accurate relationship between missile launch sites and targets. A key factor in the rivalry between the United States and the USSR in developing a world geodetic system is the communist denial to the Free World of geodetic and gravimetric data over so large a portion of the earth's surface. Any Worden gravimeter released to Krynski's Institute (under the Central Office of Geodesy and Cartography, the main governmental surveying and mapping organization in Poland, as noted on page 1 of the attachment to the airgram) would certainly be used in the verification and improvement of values for Poland's national geodetic and gravimetric networks and would thus contribute directly to the Soviet world geodetic system.

In 1960, Poland's top geophysicist stated that Soviet meters were less reliable and consistent than the Worden. A recent intelligence report [redacted] confirms the fact that the Soviets still are having problems with their gravity instruments. Discrepancies between their gravimeters and pendulum instruments are serious enough to hamper Soviet development of an airborne gravimeter. The renewed Polish attempt to obtain a Worden gravimeter therefore is understandable.

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While the release of a single US meter would not in itself make a momentous contribution to the Communist cause, it would represent a major compromise of the principle of free and equal exchange of technical data that was incorporated in the US-USSR agreement on the exchange of satellite meteorological data. The Communist policy of refusing to share geodetic and gravimetric data with the Free World represents a serious loss to US national security interests. By releasing a superior US instrument without a reciprocal communist release of such data the United States would suffer a net security loss. The issuance of a license could establish a precedent with Communist countries and thus greatly handicap the United States in denying any subsequent Communist requests for meters. There is little doubt that a sizable number of the instruments eventually would be exported to Communist countries, with commensurate lopsided benefits to the Soviet Union.

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One final consideration may be noted. The USSR and some of its Communist allies as a matter of policy promote geo-logical and oil- and mineral-resource surveys in their foreign aid programs for less developed countries. Intelligence reports of past Soviet surveys indicate that the inadequacy of their meters has hampered Soviet performance and adversely affected the reputation of Soviet surveyors. The release of US meters would be likely to improve the effectiveness of Communist surveys and might thereby weaken somewhat the competitive advantages that have been enjoyed by US survey companies.

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